

Inventor: Martha K. Newall  
Title: METHODS AND PRODUCTS  
RELATED TO METABOLIC  
INTERACTIONS DISEASE  
Express Mail Label No.: EV 292547382 US  
Date of Deposit: July 9, 2003

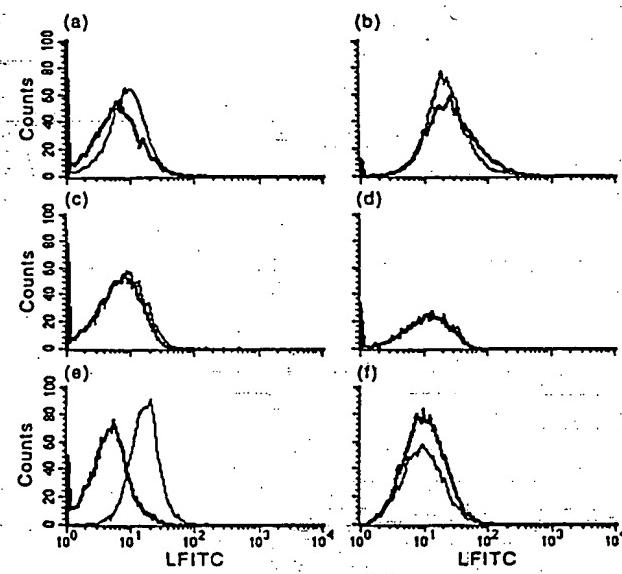


FIGURE 1A

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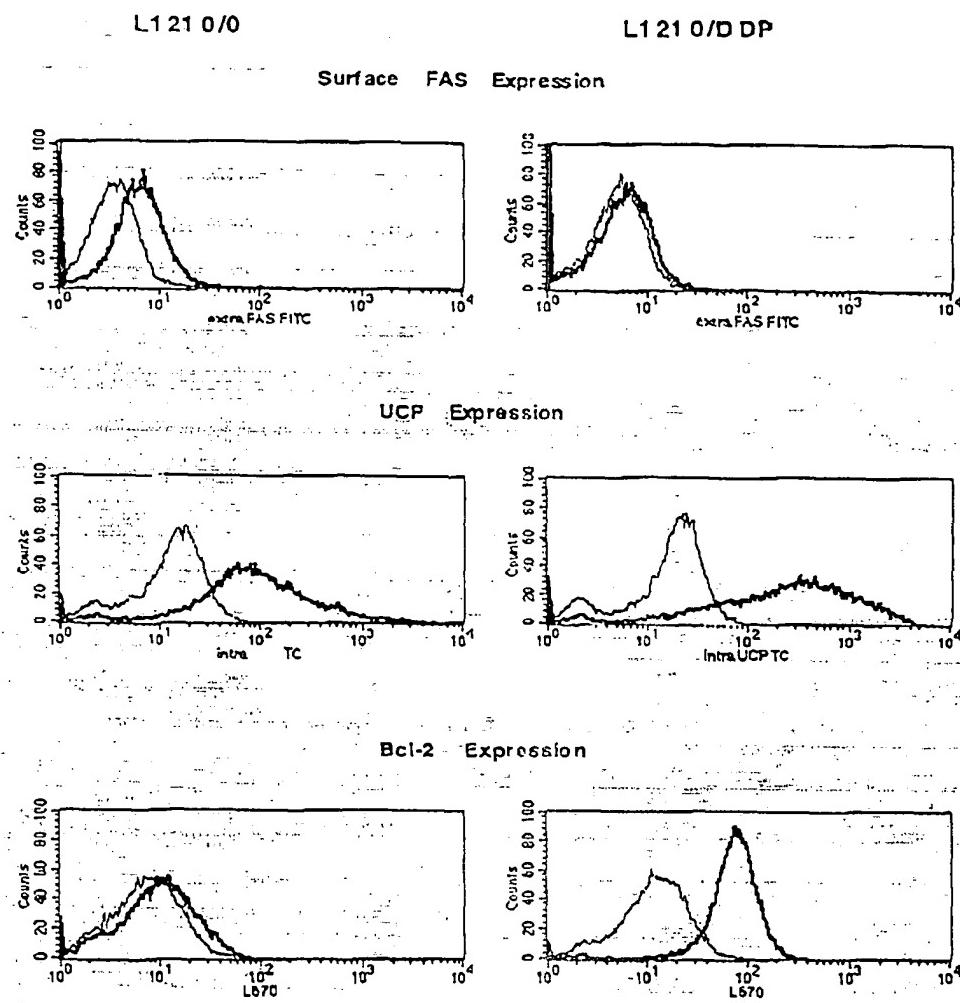


FIGURE 1B

# Fas Expression is an Insulin-Dependent Function of Glucose Concentration

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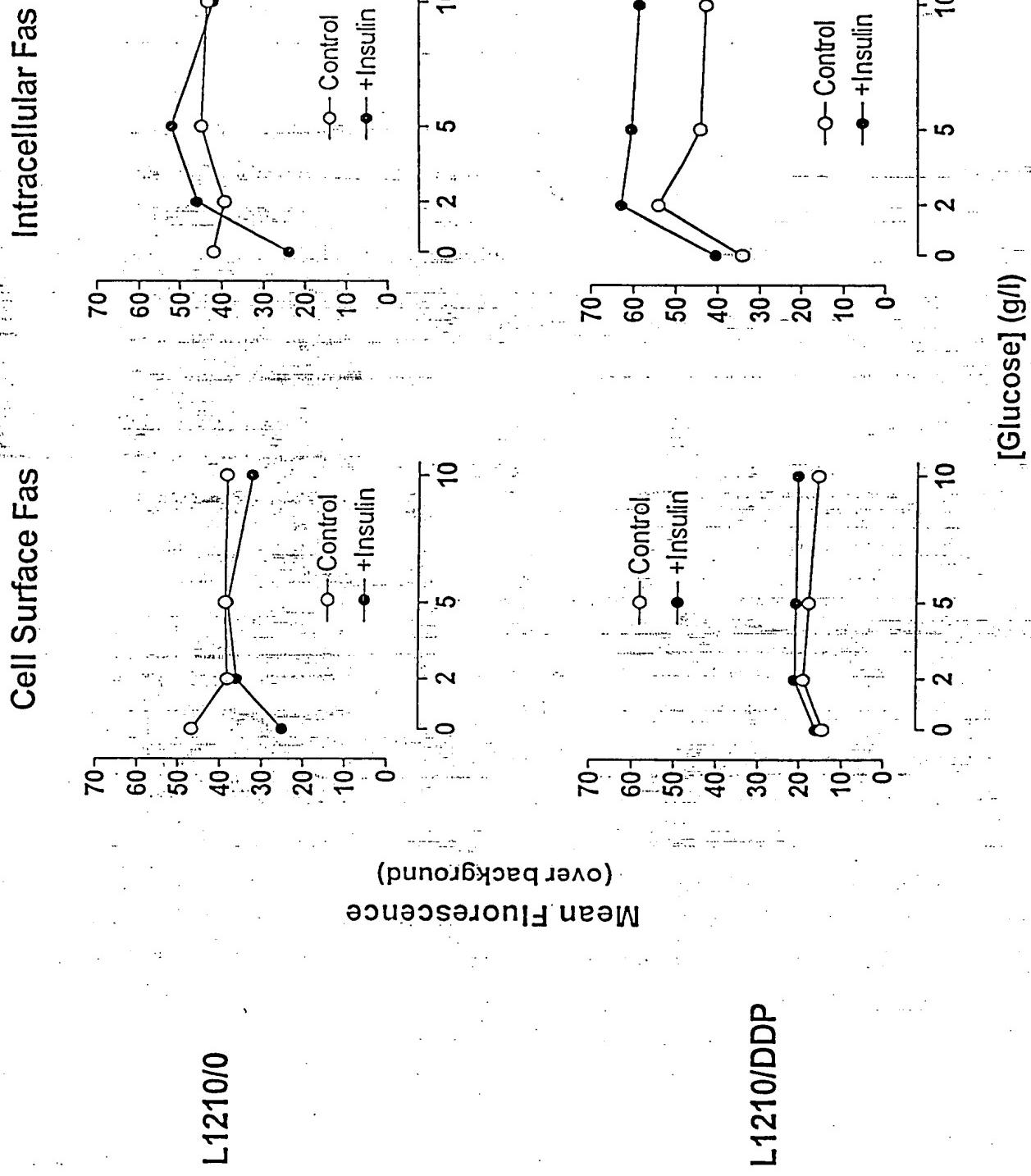


FIGURE 2

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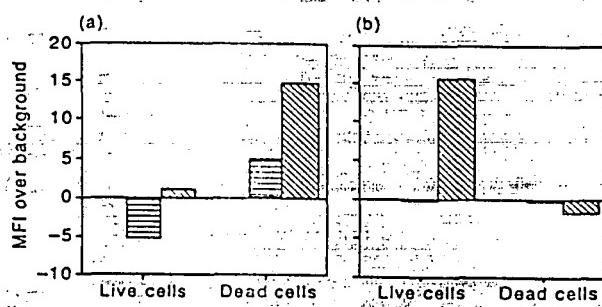


FIGURE 3

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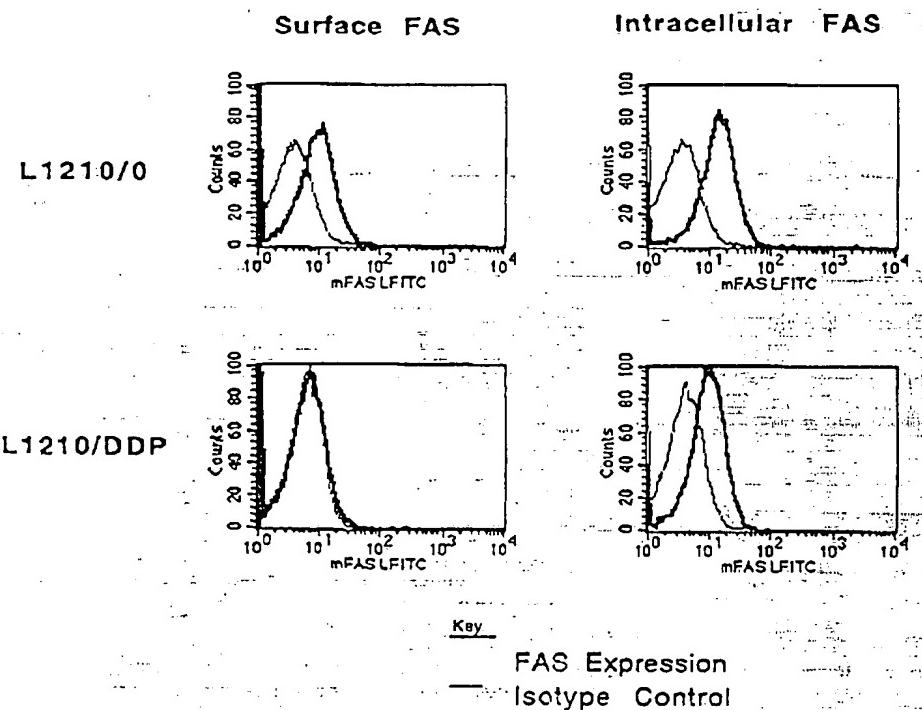


FIGURE 4

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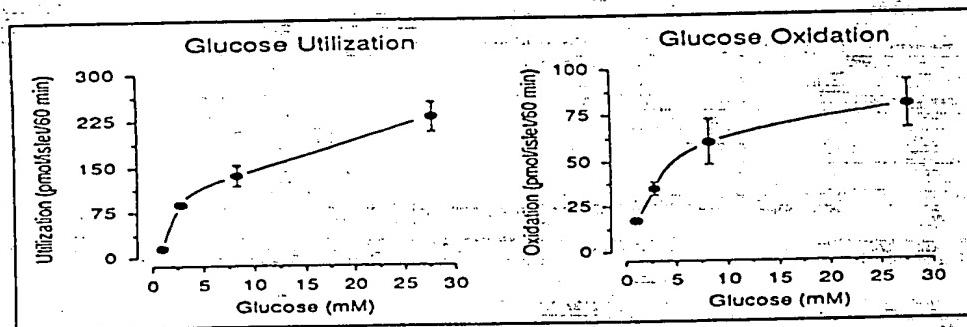


FIGURE 5

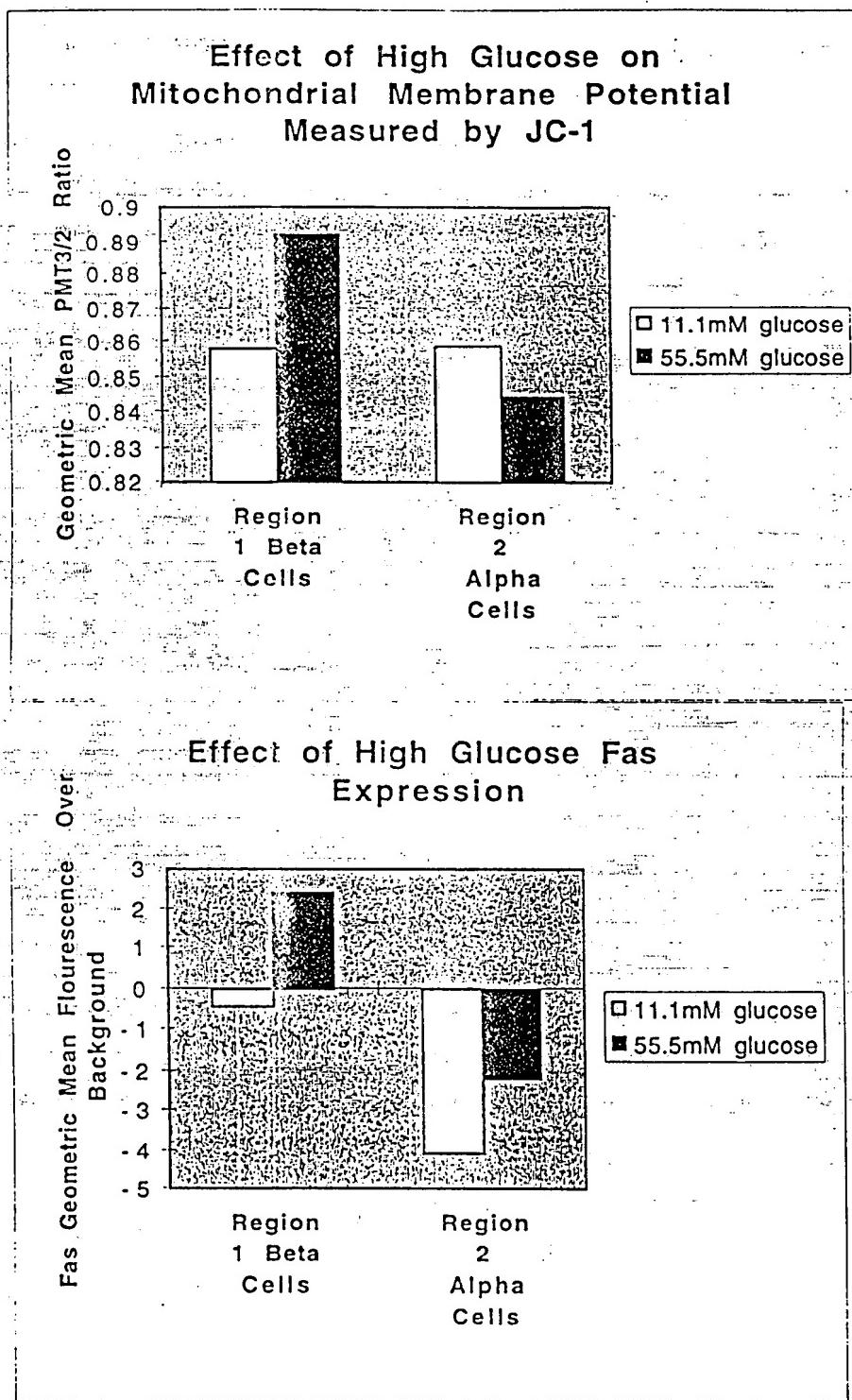


FIGURE 6

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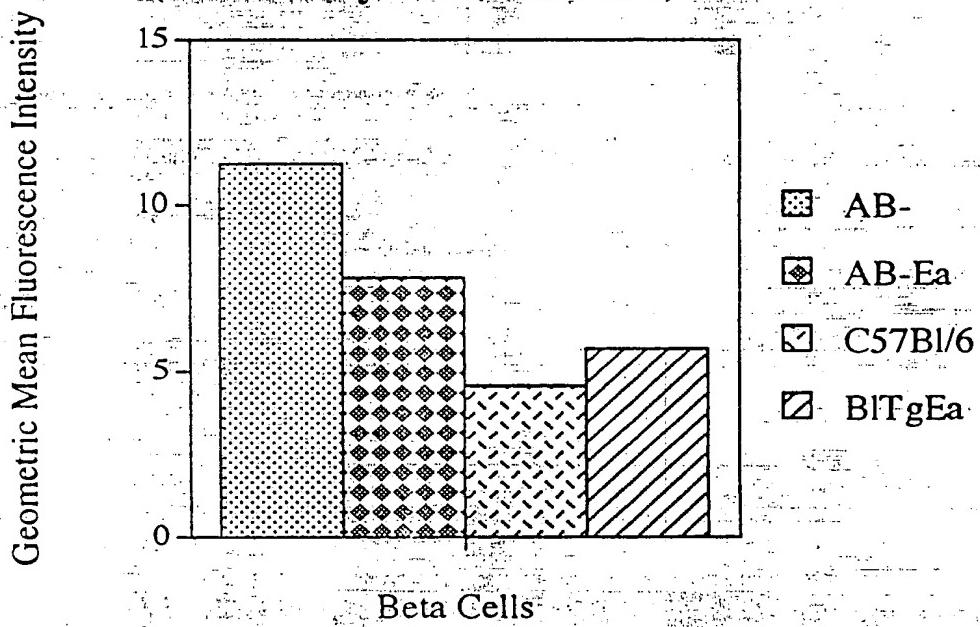


FIGURE 7

## MHC class II mediated increases in cAMP are isotype and dimerization/oligomerization state dependent

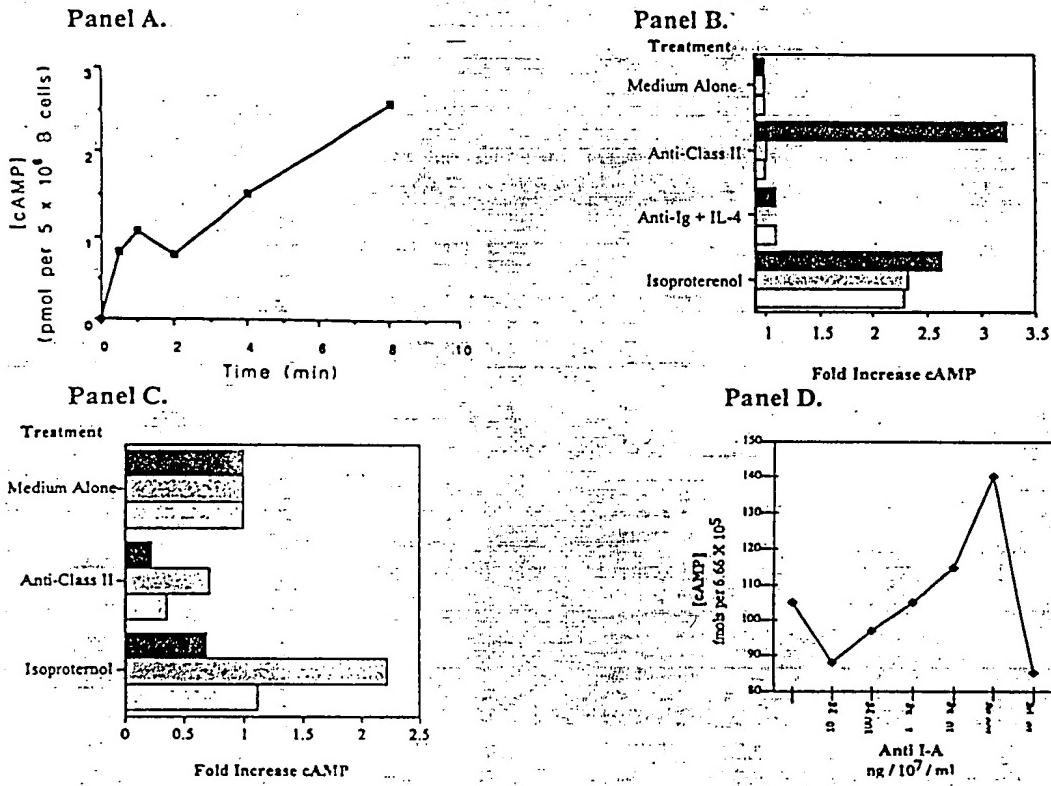
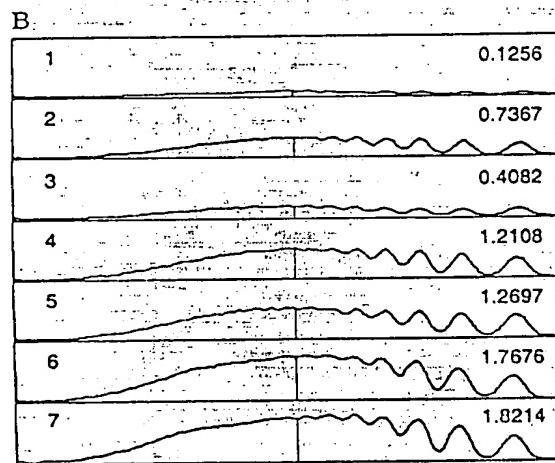
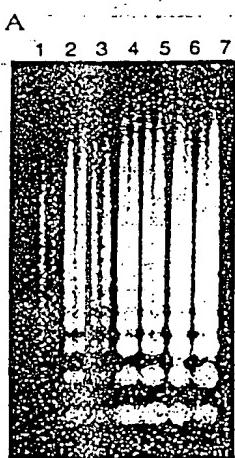


FIGURE 8

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### MHC class II induces apoptotic cell death



C

Lane	Treatment	Normalized Area	Apoptotic Index
1	Medium Alone	0.0711	0.0000
2	17/227	0.4168	0.3722
3	14-4-4S	0.2309	0.1721
4	10-2.16	0.6850	0.6609
5	H116-32	0.7183	0.6968
6	Isoproterenol	1.0000	1.0000
7	dbcAMP	1.0304	1.0328

FIGURE 9

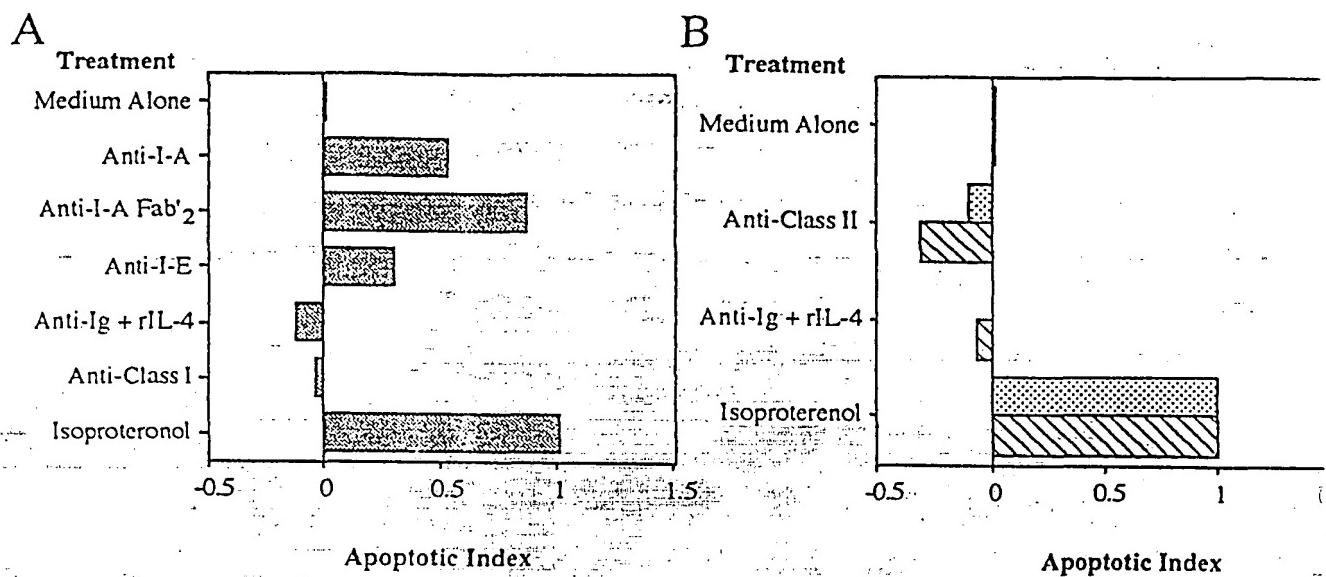


FIGURE 10

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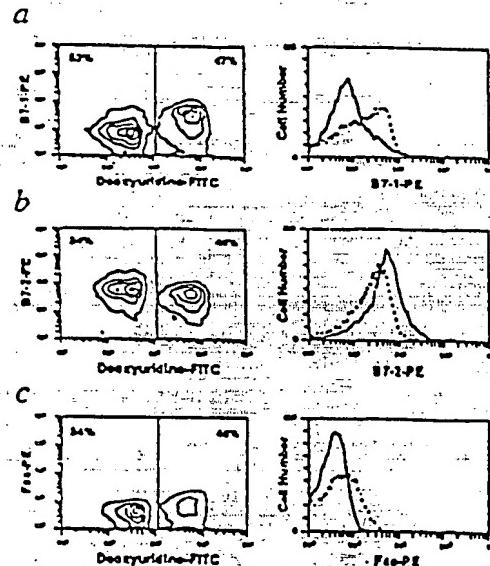
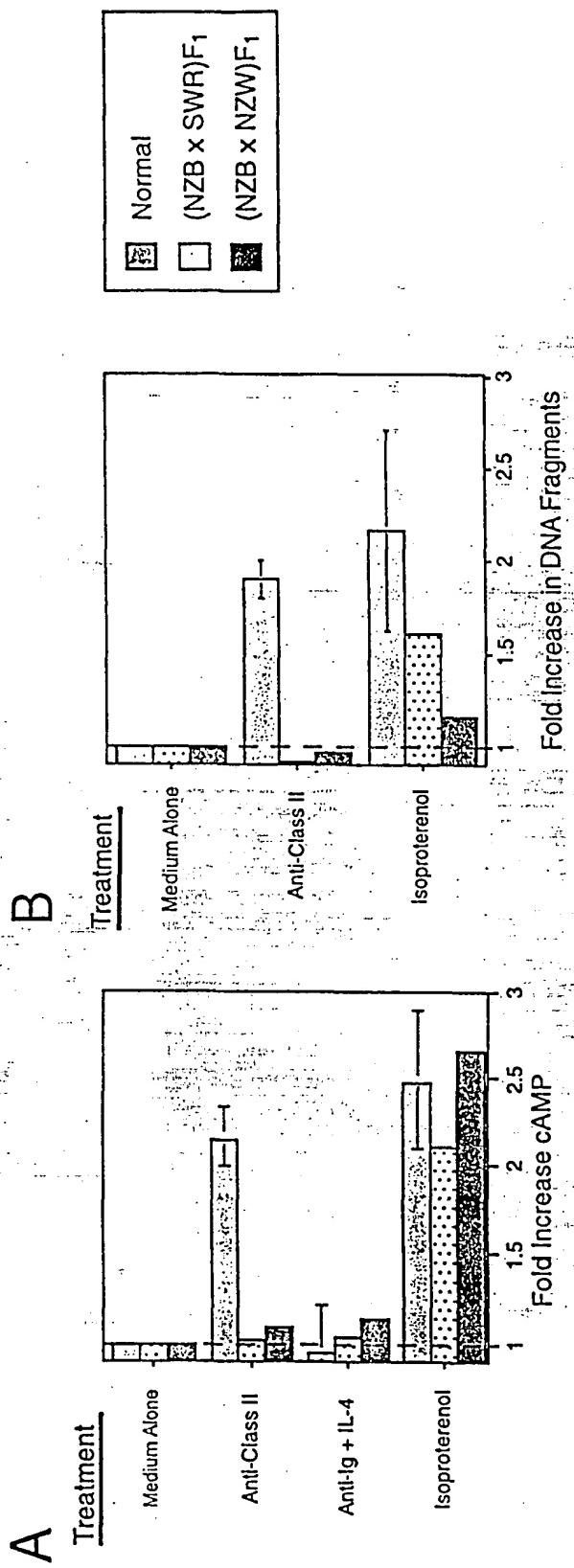


FIGURE 11

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### UCP Expression in L1210/0

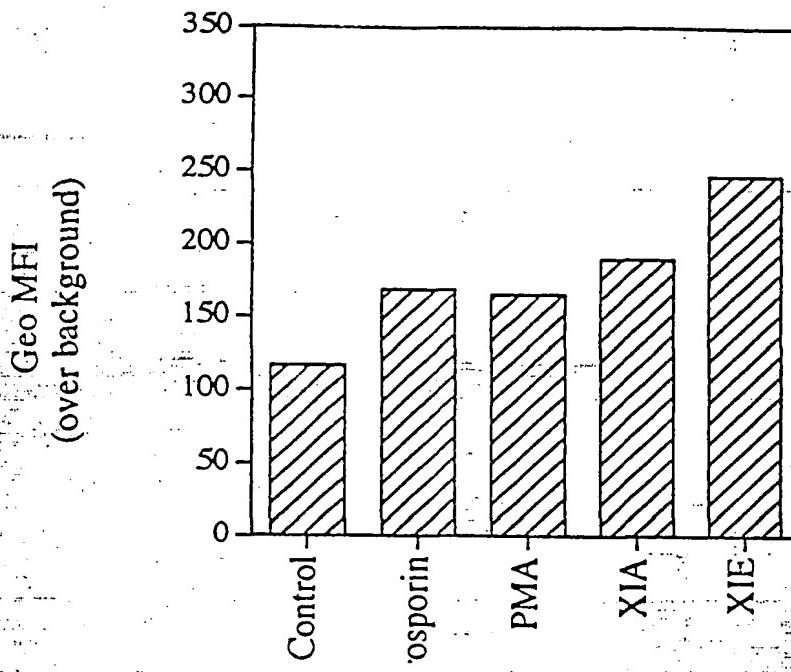


FIGURE 13A

### UCP Expression in L1210/DDP

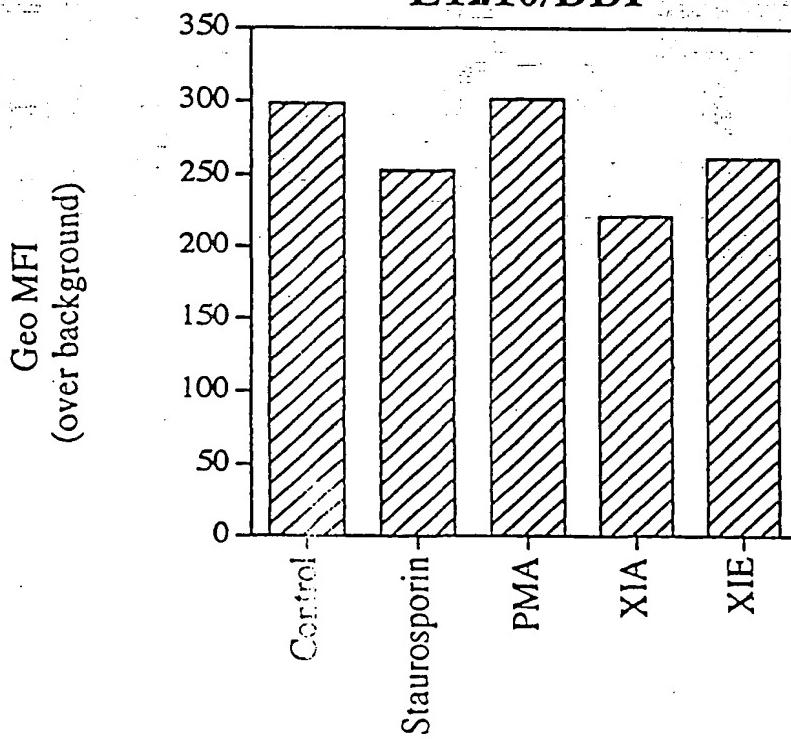


FIGURE 13B

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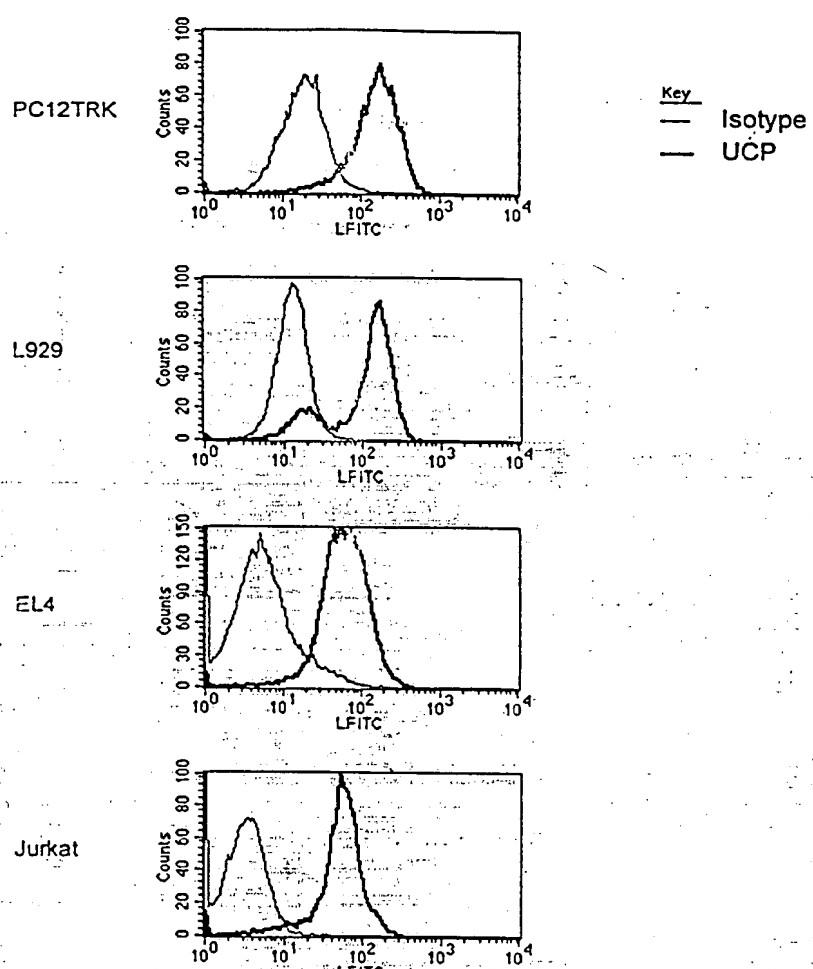


FIGURE 14

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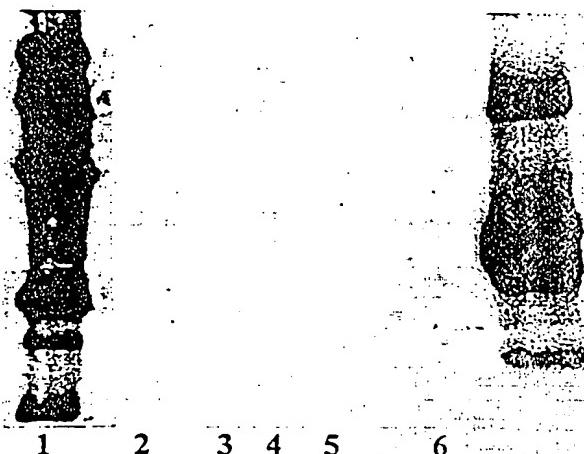


FIGURE 15

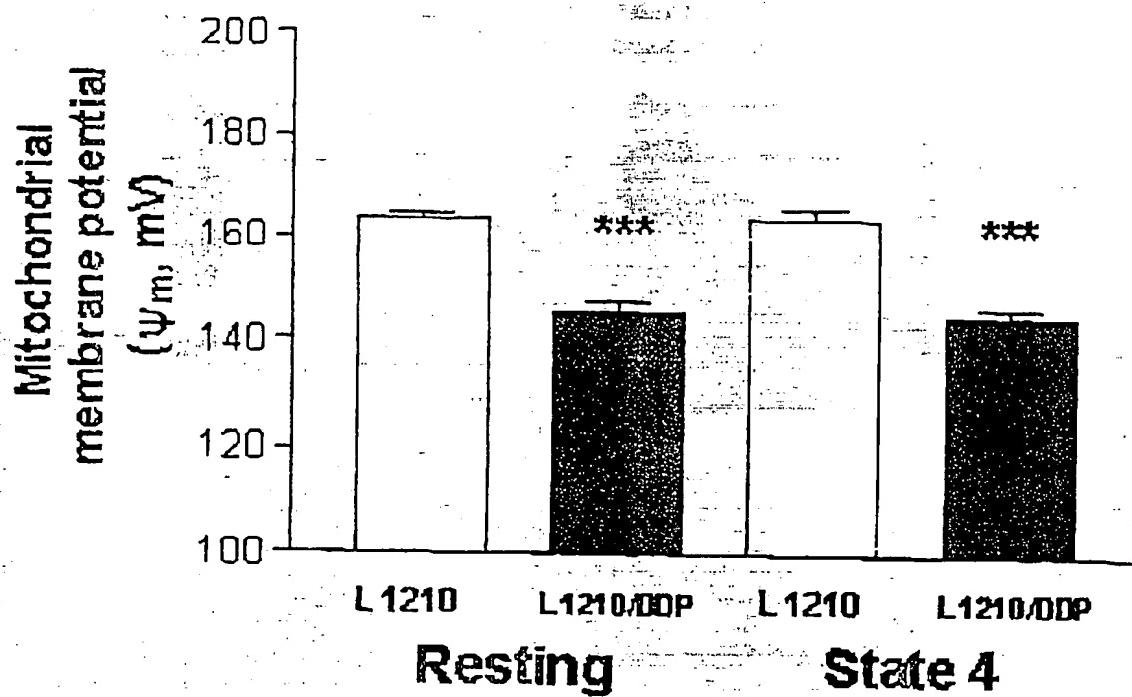


FIGURE 16

## Cell Surface Fas (CD95) Expression on Non-permeabilized B16 Melanoma Cells

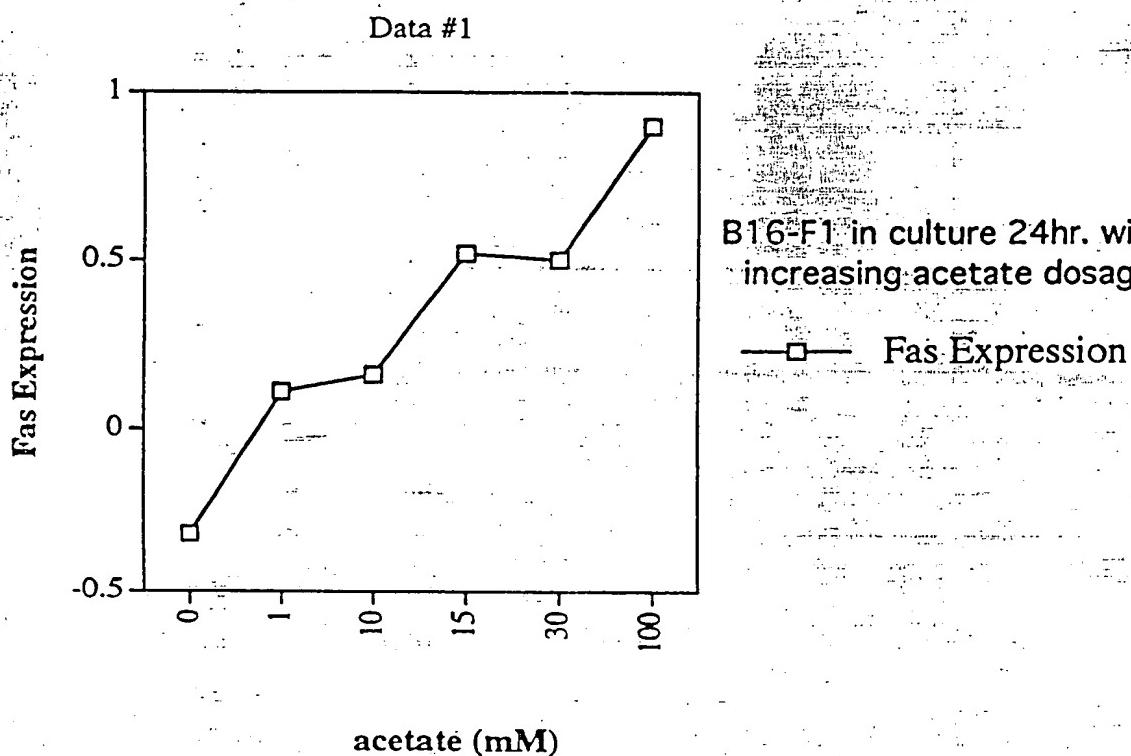


FIGURE 17A

## Fas (CD95) Expression on permeabilized B16 Melanoma Cells

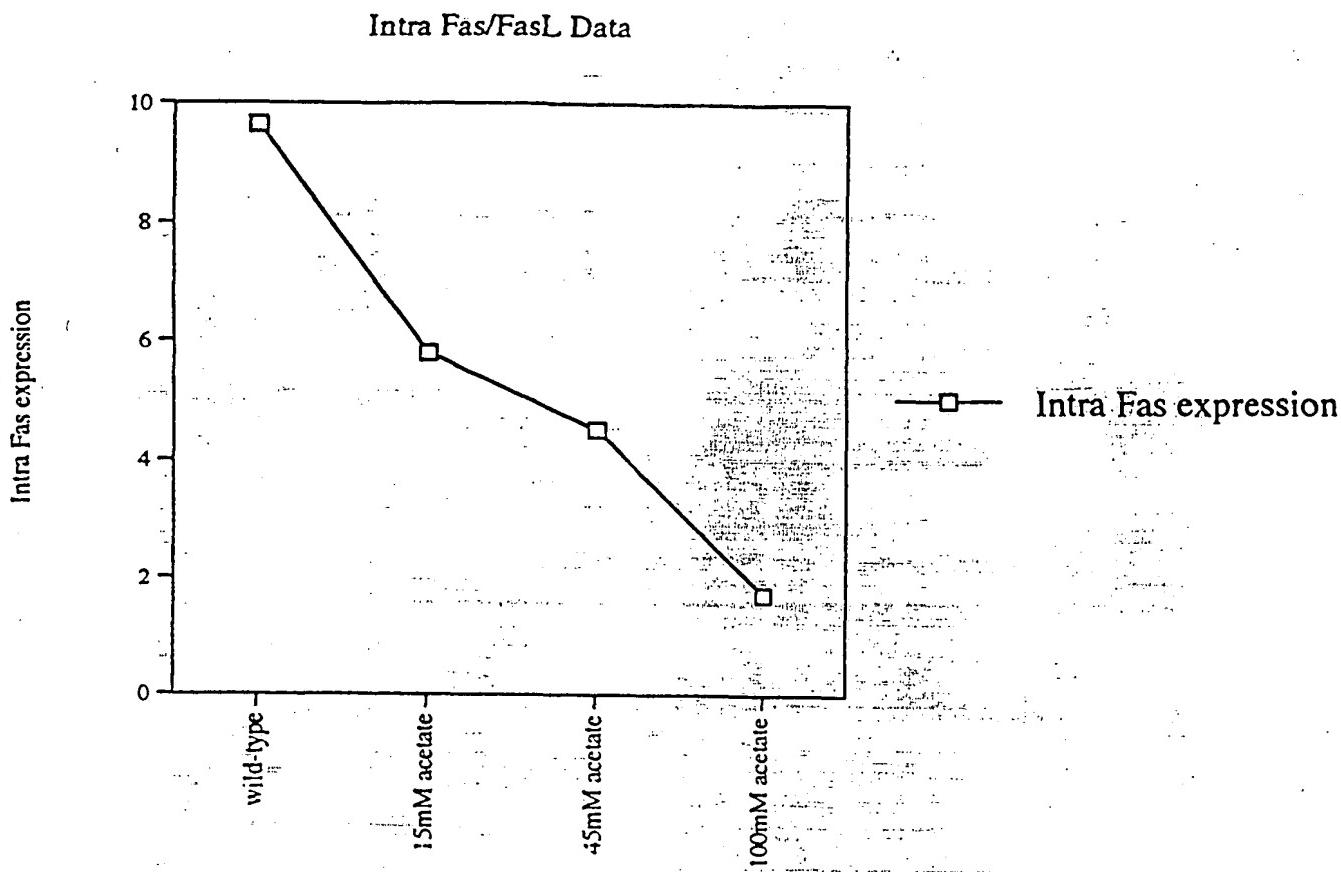


FIGURE 17B

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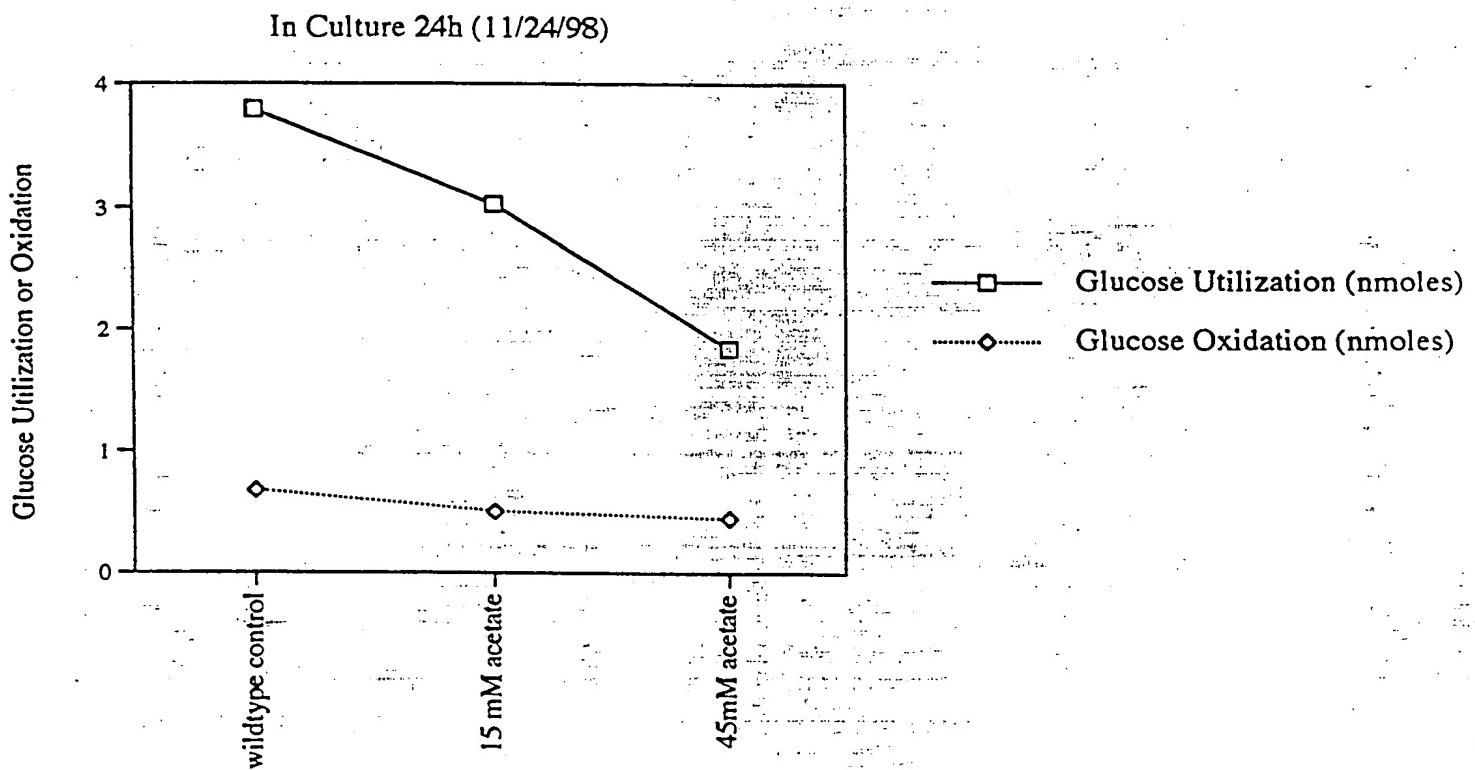


FIGURE 18

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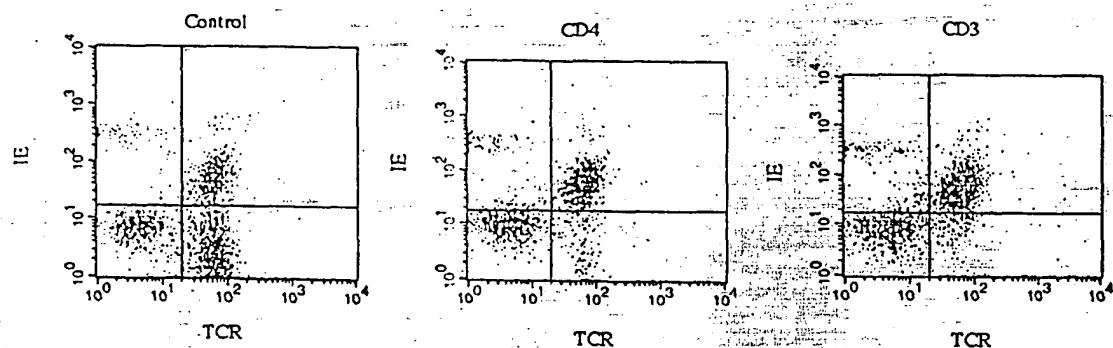


FIGURE 19

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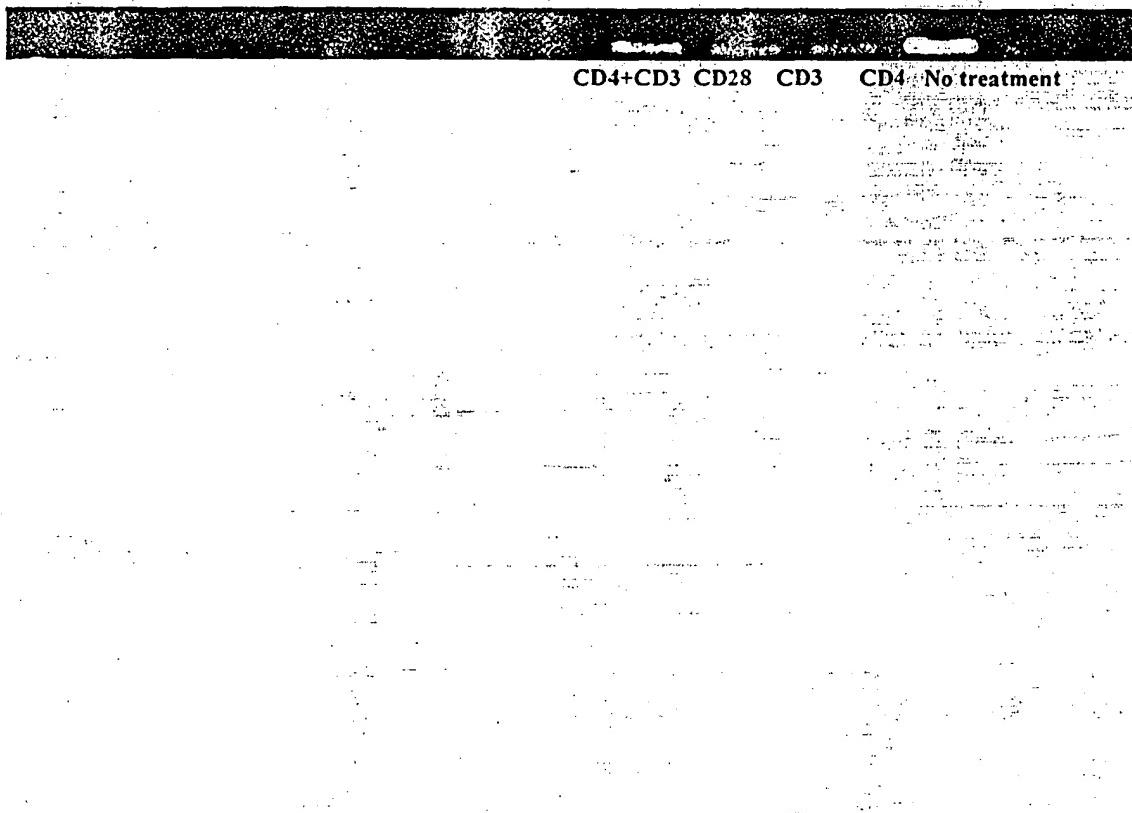


FIGURE 20

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Rates of [ $^{14}\text{C}$ ] Oleate Oxidation  
with Glucose Competition

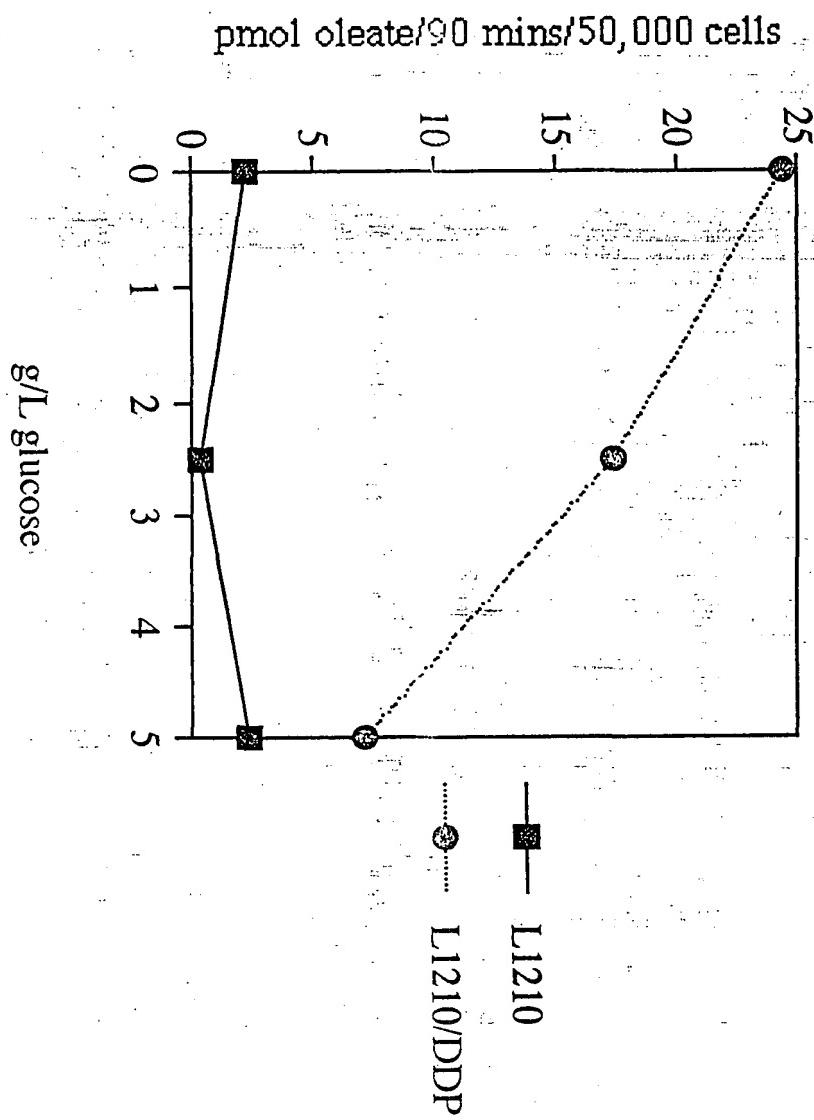
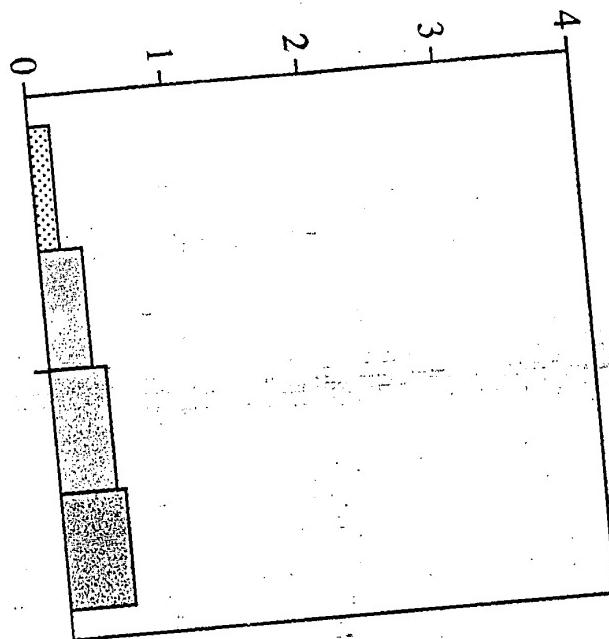


FIGURE 21

FIGURE 22

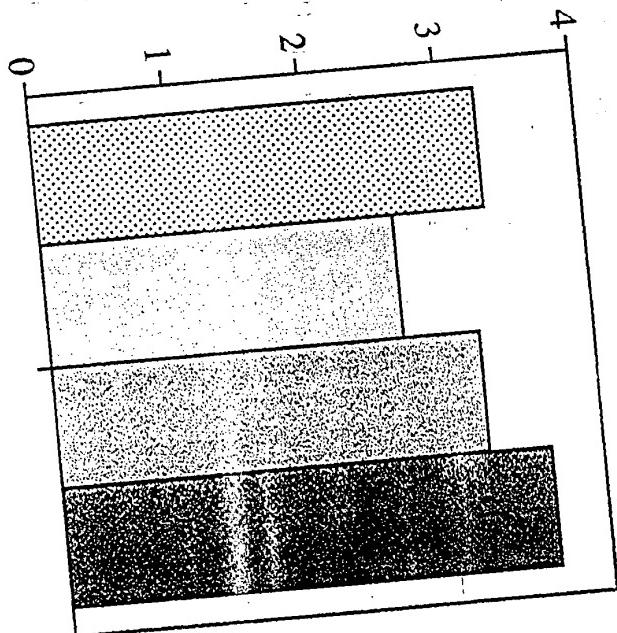
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pmol cAMP



L1210

pmol cAMP

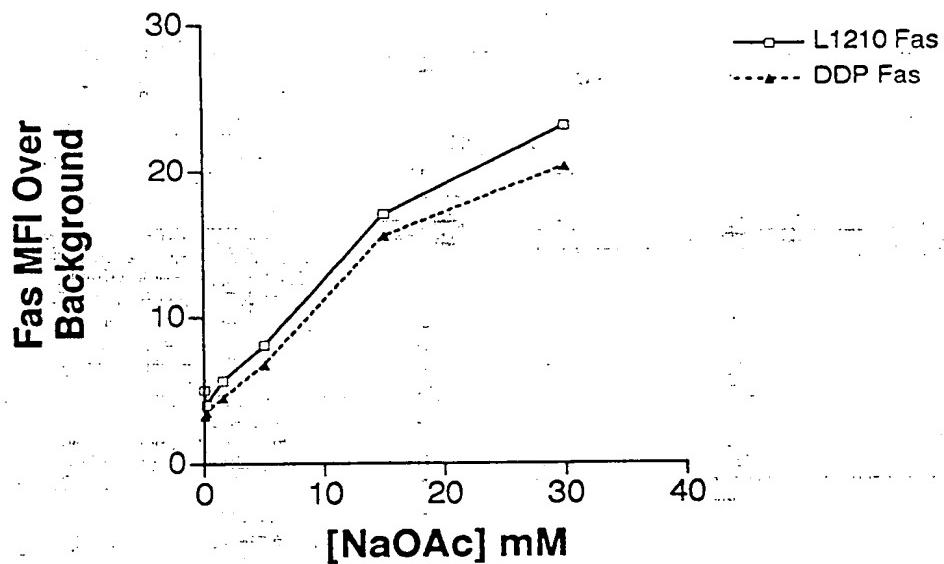


L1210/DDP

- Control
- IA
- IE
- ISO

FIGURE 23

### Induction of Fas Expression by Sodium Acetate



### Induction of ICAM-1 Expression by Sodium Acetate

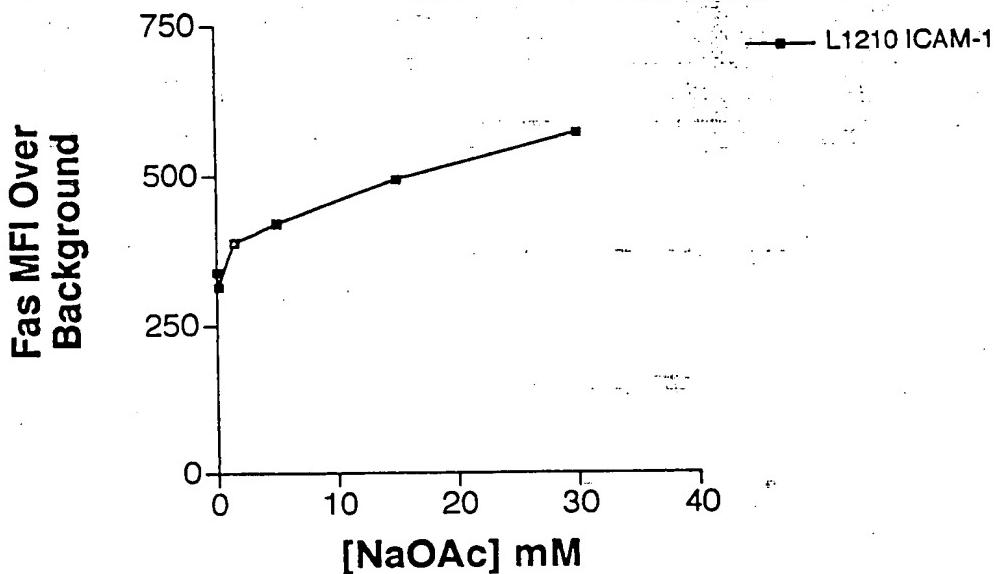
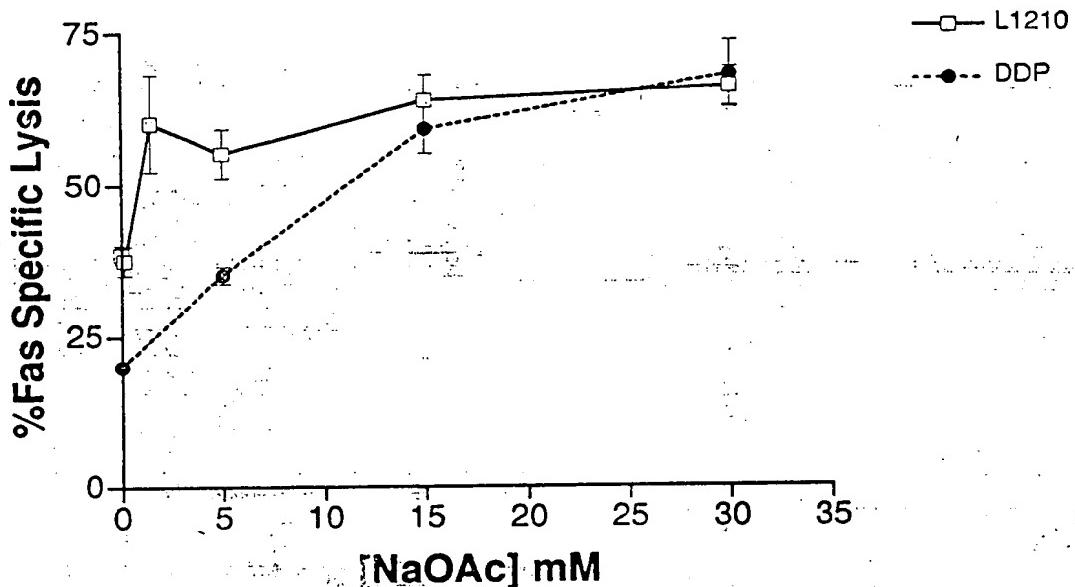


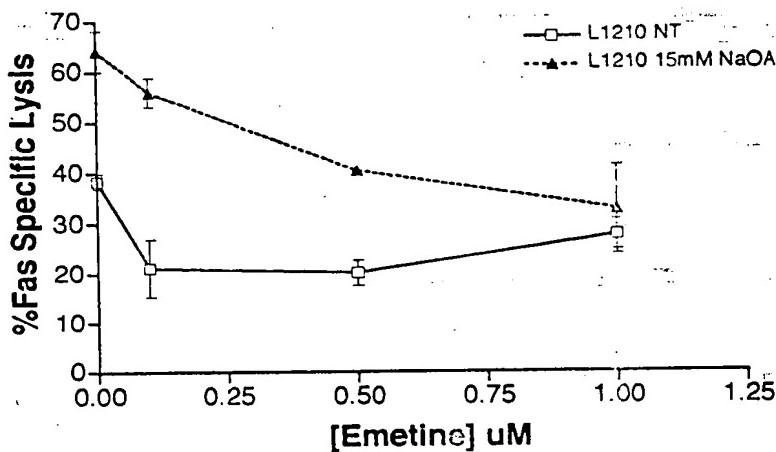
FIGURE 24

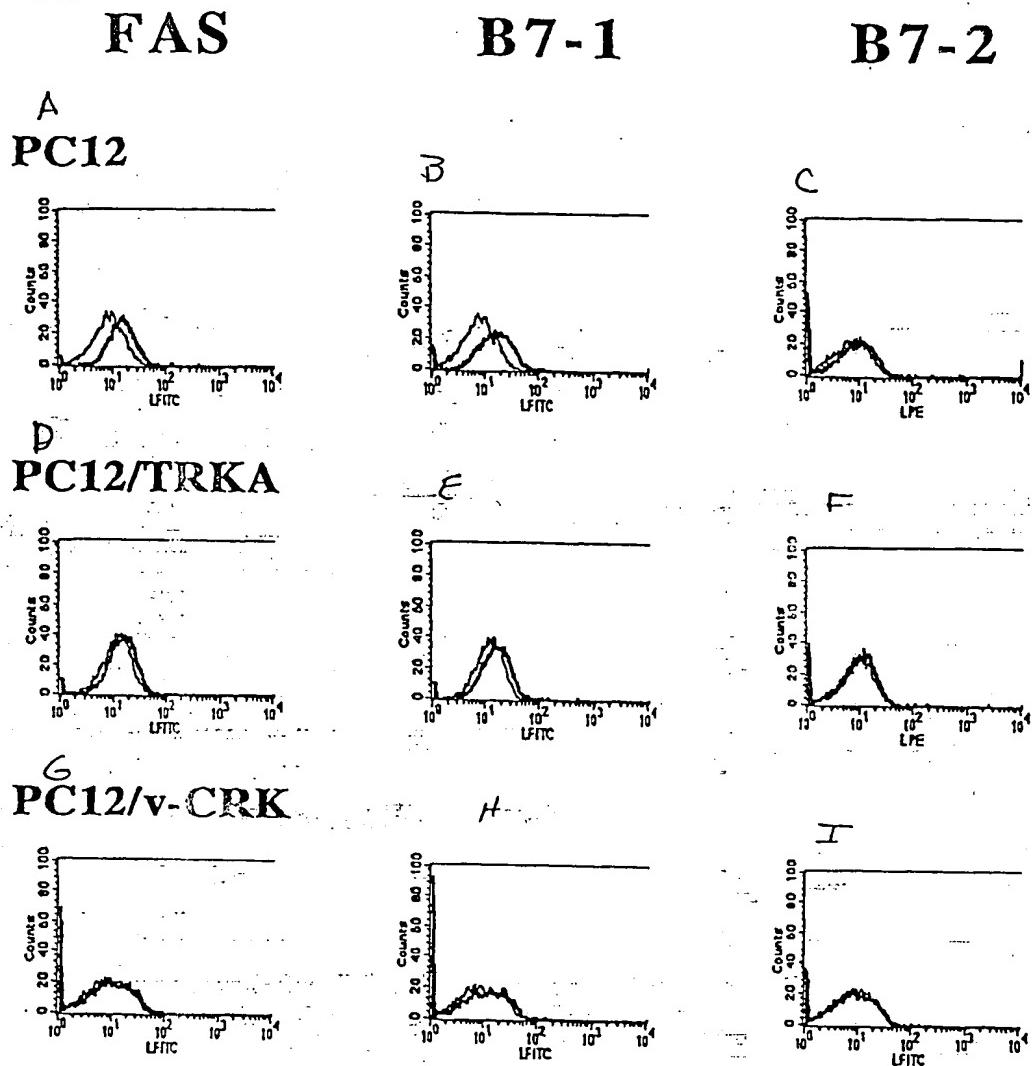
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### Induction of Fas Functional to Signal Cells to Die by Sodium Acetate



### Inhibition of Functional Fas Expression Induced by Sodium Acetate by Emetine





25  
Figure 25: Histograms depicting the constitutive expression or lack thereof of the cell surface molecules Fas, B7.1, and B7.2 on PC12 cells and their variants Trk and v-Crk.